

FORM PTO-1449 U.S. DEPT. OF COMMERCE
Patent & Trademark Office

ATTY. DOCKET NO.

2558 US

SERIAL NO.

10/732,755

**LIST OF DOCUMENTS CITED BY
APPLICANT**

APPLICANT

Hong, et al.

FILING DATE

December 10, 2003

GROUP

1751

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
BPM	AA1	6,716,970	4/6/04	Hung, et al.	—	—	—
	AB1						
	AC1						
	AD1						
	AE1						
	AF1						
	AG1						
	AH1						
	AI1						
	AJ1						
	AK1						
	AL1						
	AM1						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AN1							
	AO1							
	AP1							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR1	
	AS1	
	AT1	

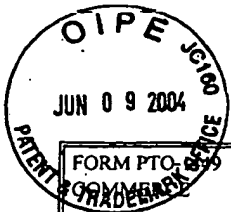
EXAMINER

Brian P. Muir

DATE CONSIDERED

3/29/05

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FORM PTO. 819 OFFICE OF PATENT & TRADEMARK SERVICE		U.S. DEPT. OF Patent & Trademark		ATTY. DOCKET NO. 2558 US		SERIAL NO. 10/732,755	
LIST OF DOCUMENTS CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT Hong, et al.			
				FILING DATE December 10, 2003		GROUP 1751	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
BPM	AA1	6,306,835	10/23/01	Daly	—	—	—
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	AE1						
	AF1						
	AG1						
	AH1						
	AI1						
	AJ1						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO
	AK1						
	AL1						
	AM1						
	AN1						
	AO1						
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
BPM	API	Sionov, et al., "Adherence of Asperigillus Species to Soft Contact Lenses and Attempts to Inhibit the Adherence", Mycoses, vol. 44, page 464-471, 2001 No Mouth Given					
	AQ1						
	AR1						
	AS1						

EXAMINER Brian P. Munt	DATE CONSIDERED 3/29/05
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U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
Bpm	AA1	2002/0018732	2/14/02	Hung, et al.	—	—	
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	AI1						
	AJ1						
FOREIGN PATENT DOCUMENTS							
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Bpm	AK1	DE 198 50 088	6/26/99	Germany	—		X
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	AM1						
	AN1						
	AO1						
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
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	AQ1						
	AR1						
	AS1						

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Bison P. Munk

DATE CONSIDERED

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		FILING DATE <div style="text-align: center; font-weight: bold;">December 10, 2003</div>		GROUP <div style="text-align: center; font-weight: bold;">NYA</div>	

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
BPM	AA1	4,701,444	10/20/87	Segal, et al.	I	I	I
	AB1	4,826,826	5/2/89	Conti	I	I	I
	AC1	5,015,632	5/14/91	Nelson	I	I	I
	AD1	5,057,542	10/15/91	Leuba, et al.	I	I	I
	AE1	5,358,706	10/25/94	Marlin, et al.	I	I	I
	AF1	5,370,744	12/6/94	Chowhan, et al.	I	I	I
	AG1	5,407,919	4/18/95	Brode, et al.	I	I	I
	AH1	5,422,116	6/6/95	Yen, et al.	I	I	I
BPM	AI1	5,597,811	1/28/97	Gruber	I	I	I
	AJ1	5,621,088	4/15/97	Gruber	I	I	I

FOREIGN PATENT DOCUMENTS								
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION		
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BPM	AK1	0 356 060	9/28/94	Europe	I	I	X	
	AL1	0 737 692	1/16/02	Europe	I	I	X	
BPM	AM1	JP 63-193999	8/11/88	Japan	I	I	X	
	AN1	JP 56-94322	7/30/81	Japan	I	I	X	
BPM	AO1	JP 59-106409	6/20/84	Japan	I	I	X	

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)		
BPM	AP1	Tokura, et al., "Studies on Chitin VIII. Some Properties of Water Soluble Chitin Derivatives", <u>Polymer Journal</u> , Vol. 15, No. 6, 1983, pages 485-489
BPM	AQ1	"Nishimura, et al, "Bioactive Chitin Derivatives. Activation of Mouse-Peritoneal Macrophages by O-(Carboxymethyl) Chitins", <u>Carbohydrate Research</u> , Vol. 146, 1986, pages 251-258
BPM	AR1	Hjerde, et al., "Chemical Composition of O-(Carboxymethyl)-Chitins in Relation to Lysozyme Degradation Rates", <u>Carbohydrate Polymers</u> , Vol. 34, 1997, pages 131-139
BPM	AS1	Stokke, et al., "Sequence Specificities for Lysozyme Depolymerization of Partially N-acetylated Chitosans", <u>Can. J. Chem.</u> , Vol. 75, 1995, pages 1972-1981

EXAMINER <div style="text-align: center; font-family: cursive;">Brian P. Mruk</div>	DATE CONSIDERED <div style="text-align: center; font-family: cursive;">3/29/05</div>
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U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
BPM	AA2	5,645,827	7/8/97	Marlin, et al.			
	AB2	5,747,475	5/5/98	Nordquist, et al.			
	AC2	5,773,021	6/30/98	Gurtler, et al.			
	AD2	5,858,937	1/12/99	Richard, et al.			
	AE2	5,876,744	3/2/99	Valle, et al.			
	AF2	5,891,861	4/6/99	Platt			
	AG2	5,948,401	9/7/99	Donabedian, et al.			
	AH2	6,037,333	3/14/00	Panjwani			
	AI2	6,046,176	4/4/00	Segal, et al.			
BPM	AJ2	2002/0177577	11/28/02	Hung, et al.			

FOREIGN PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
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BPM	AK2	JP 63-9611	4/27/88 Japan	—	—		X
BPM	AL2	JP 7-223966	8/22/95 Japan	—	—		X
BPM	AM2	WO 94/13774	6/23/94 WIPO	—	—	X	

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)		
BPM	AN2	Dung, et al., "Water Soluble Derivatives Obtained by Controlled Chemical Modifications of Chitosan", <u>Carbohydrate Polymers</u> , Vol. 24, 1994, pages 209-214
BPM	AO2	Nordtveit, et al., "Degradation of Fully Water-Soluble, Partially N-acetylated Chitosans with Lysozyme", <u>Carbohydrate Polymers</u> , Vol. 23, 1994, pages 253-260
BPM	AP2	Kristiansen, et al., "Competitive Binding of Highly de-N-acetylated Chitosans and N,N'-diacetylchitobiose to Lysozyme from Chicken Egg White Studies by ¹ H NMR Spectroscopy", <u>Carbohydrate Research</u> , Vol. 289, 1996, pages 143-150
BPM	AQ2	Hayashi, et al., "Muramidase Catalyzed Hydrolysis of Glycol Chitin", <u>Agr. Biol. Chem.</u> , Vol. 28, No. 8, 1964, pages 517-523
BPM	AR2	Bernkop-Schnurch, et al., "Chemically Modified Chitosans as Enzyme Inhibitors", <u>Advanced Drug Delivery Reviews</u> , Vol. 52, 2001, pages 127-137
BPM	AS2	Yamada, et al., "A Convenient Synthesis of Glycolchitin, a Substrate of Lysozyme", <u>Carbohydrate Research</u> , Vol. 92, 1981, pages 160-162

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	AB3					
	AC3					
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	AI3					
	AJ3					
FOREIGN PATENT DOCUMENTS						
	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION
						YES NO
BPM	AK3	WO 94/16743	8/4/94	WIPO	—	X
BPM	AL3	WO 95/09905	4/13/95	WIPO	—	X
BPM	AM3	WO 95/13097	5/18/95	WIPO	—	X
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)						
BPM	AN3	Hayashi, et al., "The Enzyme-Substrate Complex of Lysozyme with Chitin Derivatives", <u>The Journal of Biochemistry</u> , Vol. 65, No. 3, 1969, pages 401-405				
BPM	AO3	Kurita, "Chemical Modification of Chitin", <u>Journal of Synthetic Organic Chemistry Japan</u> , Vol. 42, No. 6, 1984, pages 567-574 NOT TRANSLATED				
BPM	AP3	Senju, et al., "Studies of Chitin Part I On the Glycolation of Chitin and the Chemical Structure of Glycolated Chitin", <u>Journal of the Agricultural Chemical Society of Japan</u> , Vol. 23, No. 10, 1950, pages 432-437 TRANSLATED				
BPM	AQ3	Kumar, "An Internet Chitin and Chitosan Applied Research Resource", <u>Chitin and Chitosan for Versatile Applications Homepage Maintained by M.N.V. Ravi Kumar</u> , 11/22/00; pages 1-11				
BPM	AR3	Rotman, et al., "Effect of a Chitin Derivative in Combination With Cleaning and Preservation Solutions for Contact Lenses on Adherence of Fungi", <u>Mycoses</u> , 2003 Blackwell Publishing Ltd., Vol. 46, pages 90-95				
BPM	AS3	"Chitin", <u>The Merck Index</u> , Twelfth Edition, 1996, page 342				

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EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
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		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION YES NO	
BPM	AG4	WO 96/03973	2/15/96	WIPO	I	I	X	
BPM	AH4	WO 97/06782	2/17/97	WIPO			X	
BPM	AI4	WO 98/06438	2/19/98	WIPO			X	
BPM	AJ4	WO 98/19708	5/14/98	WIPO			X	
BPM	AK4	WO 99/01498	1/14/99	WIPO			X	
BPM	AL4	WO 99/32158	7/1/99	WIPO			X	
BPM	AM4	WO 00/14155	3/16/00	WIPO			X	
BPM	AN4	WO 00/30609	6/2/00	WIPO			X	
BPM	AO4	WO 00/60038	10/12/00	WIPO			X	
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)								
BPM	AP4	"Chitin", <u>The Merck Index</u> , Thirteenth Edition, 2001, pages 353-354						
BPM	AQ4	"The Enzyme-substrate Complex in a Muramidase Catalyzed Reaction", <u>The Journal of Biochemistry</u> , Vol. 54, No. 5, (1963), pages 381-387						
BPM	AR4	"Studies on the Structure and Enzymatic Function of Lysozyme", <u>The Journal of Biochemistry</u> , Vol. 48, No. 3, (1960), pages 351-357						
BPM	AS4	"Chitosan as Tear Substitute: A Wetting Agent Endowed with Antimicrobial Efficacy", <u>Journal of Ocular Pharmacology and Therapeutics</u> , Vol. 16, No. 3, (2000), pages 261-270						

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	AO4						
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
BPM	AP4	"Topical Use of Chitosan in Ophthalmology: Tolerance Assessment and Evaluation of Precorneal Retention", <u>International Journal of Pharmaceutics</u> , Vol. 180 (1999), pages 185-193					
BPM	AQ4	"Biomaterials in Ophthalmic Drug Delivery", <u>Eur. Journal Pharm. Biopharm.</u> , Vol. 42, No. 6, (1996), pages 358-374					
BPM	AR4	"Chitosan: A Unique Polysaccharide for Drug Delivery", <u>Drug Development in Industrial Pharmacy</u> , Vol. 24, No. 11, (1998), pages 979-993					
	AS4						

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